



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,807	08/27/2003	Mamadi Keita	KEIT3001/FJD	3941
23364	7590	10/06/2004		
BACON & THOMAS, PLLC 625 SLATERS LANE FOURTH FLOOR ALEXANDRIA, VA 22314			EXAMINER THOMPSON, JEWEL VERGIE	
			ART UNIT 2855	PAPER NUMBER

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/648,807	KEITA ET AL.	
	Examiner	Art Unit	
	Jewel V Thompson	2855	AW

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 11-20 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-14 and 19 is/are rejected.
- 7) ☒ Claim(s) 15-18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/27/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/8/03</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. Acknowledgement is made of the Information Disclosure Statement filed December 8, 2003, which has been made record of and placed in the file.

### **Priority**

2. Acknowledgement is made of the Priority filed September 25, 2003, which has been made record of and placed in the file.

### ***Claim Objections***

3. Claim 12, 13 and 14-18 are objected to because of the following informalities: claims 12, 13 and 14 are dependent on cancelled claim 10. Examiner made the assumption that applicant meant claims 12, 13 and 14 to be dependent on claim 11. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lew (4,807,481).

**Regarding claim 11**, Lew teaches a method for determining a mass flow rate of a fluid flowing in a pipe, comprising the step of: producing vortices, especially Karman vortices, in the flowing fluid by means of a bluff body (1) around which the fluid flows, the bluff body having at least two separation edges (fig. 1), and determining a repetition frequency with which the vortices are produced; producing, on the basis of the determined repetition frequency, a flow rate measurement value, which represents a volume flow rate or a flow velocity (col. 5, lines 28-34); local registering of a first pressure,  $p(1)$  (118), acting in the flowing fluid at a first measurement point, which is located, with reference to the flow direction, by the two separation edges of the bluff body or downstream from at least one of the separation edges; and local registering of a second pressure,  $p_2$  (119), acting in the flowing fluid at a second measurement point separated from the first measurement point in the flow direction, whereas: by action of the generated vortices, at least one of the registered pressures  $p_1$  and  $p_2$  changes periodically at least with the repetition frequency, using the registered

Art Unit: 2855

first pressure,  $p_1$ , a pressure measurement value that is produced which represents an average dynamic pressure acting, averaged over time, at least partly in the flow direction, as well as using the pressure measurement value and the flow rate measurement value, a mass flow rate measurement value is produced representing the mass flow (abstract)

**Regarding claim 12**, Lew teaches the repetition frequency, with which the vortices are produced, is determined on the basis of at least one of the registered pressures (col. 15, lines 20-23).

**Regarding claim 13**, Lew teaches at least one of the measurement points is arranged at the bluff body or inside of the same (fig. 1).

**Regarding claim 14** Lew teaches a pressure difference between the two locally registered pressures is determined for producing the pressure measurement value .

**Regarding claim 19** Lew teaches one of the locally registered pressures  $p_1$ ,  $p_2$  is a total pressure acting in the flow direction and/or a static pressure acting in the fluid (fig. 1).

### ***Allowable Subject Matter***

5. Claims 15-18 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2855

### Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


5,214,965 Lew teaches a vortex generator-sensor

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jewel V Thompson whose telephone number is 571-272-2189. The examiner can normally be reached on 7-4:30, off alternate Mondays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jvt  
October 1, 2004

  
EDWARD LEFKOWITZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800